

REMARKS

Favorable reconsideration and allowance of the present application are respectfully requested in view of the following remarks.

Claims 1-8, 10-25, and 27-30 are currently pending in the present application, including independent claims 1, 16, and 23. Independent claim 1, for instance, is directed to a laminate structure comprising a first substrate containing a thermoplastic polymer and a second substrate containing a thermoplastic polymer. Each substrate is textured and possesses elevations and depressions, the depressions being fused together to form fused portions and the elevations forming unfused portions. The unfused portions define elongated pockets that contain discrete regions of particles, the pockets having a length-to-width ratio of between about 4 to about 100. The fused portions define at least one perimeter region and at least one inner region. The inner region is bonded to an extent such that it is capable of delaminating upon the application of a force thereto, while the perimeter region withstands substantial delamination upon the application of this force.

In the Office Action, independent claims 1, 16, and 23 were first rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,892,535 to Bjornberg, et al. in view of U.S. Patent No. 5,411,497 to Tanzer, et al. Bjornberg, et al. is directed to absorbent pads of the type used to form incontinence pads, wherein the absorbent pad comprises a liquid-impervious back sheet with spaced islands of absorbent material thereon and a liquid-pervious cover sheet having pockets formed therein, in which the islands of absorbent material are disposed. Applicants respectfully submit that Bjornberg, et al. completely fails to disclose or suggest a laminate structure wherein each substrate is textured and possesses elevations and depressions, the depressions being fused together to form fused portions and the elevations forming unfused portions.

At pages 3 and 4, the Office Action states the following with regard to the above-emphasized claim limitation and the Bjornberg, et al. reference:

First, it is noted that this is a limitation directed to the shape of the material before it is laminated. However, patentable weight is only given to the **shape of the product in the final form**. Hence, the prior art does not need to start out with textured outer layers as

long as the final product has the claimed elevations and depressions in the outer layers. As set forth in the previous Office Action, the bottom layer taught by Bjornberg et al. will not stay completely flat, but will bulge out to some degree due to the presence of the particles, inherently forming elevations and depressions in the final product. Thus, both the top and the bottom layers will have depressions and elevations in the final product. **The backing layer does not need to have a textured form before the laminate is produced as long as it is present in the final product.**

(Emphases added). Applicants respectfully submit, however, that the “shape of the product in the final form” taught by Bjornberg, et al. is quite distinct from the laminate structure in its “final form” that is recited in Applicants’ pending claims.

In Bjornberg, et al., the “product in final form” is an absorbent pad formed by laminating a liquid-impervious back sheet to a liquid-pervious cover sheet, wherein pockets are formed in the cover sheet while the back sheet remains substantially flat. By way of example, column 3, lines 34-65 of Bjornberg, et al. describe Figures 1-3 as showing the “absorbent pad 1”—clearly the “product in final form”—and back sheet 3 is completely flat in those Figures. Rather than disclosing or suggesting any embodiment where two substrates in a laminate structure are both textured and possess elevations and depressions, Bjornberg, et al. repeatedly explains that its “pockets” are formed in its “cover sheet” 7, **not** in its back sheet 3. (See, e.g., col. 2, lines 60-62; col. 4, lines 10-13; col. 5, lines 39-56; col. 7, lines 48-52, etc.). For instance, column 2, lines 41-45 of Bjornberg, et al. describe the cover sheet between the channels being of “three-dimensional form having a plurality of spaced pockets therein, in each of which one of the bodies of absorbent material is disposed,” not once suggesting that the back sheet 3 has any sort of “three-dimensional form.”

The Examiner has suggested that the substantially flat back sheet of Bjornberg, et al. would “bulge out” to some degree due to the presence of the bodies of absorbent material, and thus result in a substrate that is textured and possesses elevations and depressions. Yet, nothing in the disclosure of Bjornberg, et al. itself contemplates the back sheet 3 as having any configuration other than being substantially flat. And even if such “bulging” did occur, one of ordinary skill in the art would not recognize such a

structure as a "textured substrate" having elevations and depressions. For example, Applicants' Figure 4 shows a side view of laminate structure 10—clearly, the "product in final form" claimed by Applicants—wherein substrates 12 and 14 are both textured and possess elevations and depressions, the depressions being fused together to form fused portions (bonded portions 24) and the elevations forming unfused portions. (Appl., p. 3, lines 27-28; p. 23, lines 25-30).

Contrary to particles merely "bulging out," forming such textured substrates (like substrates 12 and 14) that fuse together to form bonded portions 24 generally requires a certain level of heat and pressure to mold and shape the substrates into a textured form. Upon cooling, the textured substrates would retain their textured form. On the other hand, a "substantially flat" sheet that only bulges upon contact with particles is not "textured" as understood in the art—i.e., it does not possess a textured form in the absence of such particles. Thus, Applicants respectfully submit that any "bulging out" of Bjornberg, et al.'s back sheet 3, due to the presence of particles, simply would not render that back sheet a "textured substrate that possesses elevations and depressions," based on the ordinary meaning to those skilled in the art.

Accordingly, then, Bjornberg, et al. completely fails to teach or suggest certain aspects of independent claims 1, 16, and 23. Nevertheless, Tanzer, et al. was cited in combination with Bjornberg, et al. in an attempt to render obvious claims 1, 16, and 23. The Office Action referred to portions of Tanzer, et al. describing the specific water-sensitive attaching means used in Tanzer, et al. for securing together carrier layers 98 and 100 to form absorbent laminate 112, wherein the water-sensitive attaching means sometimes has a wet strength less than the separating force imparted by the swelling of the high absorbency material when the high absorbency material is exposed to aqueous liquids, such as urine. (See, e.g., col. 13). And the Office Action stated that such teachings can be combined with Bjornberg, et al. to render Applicants' claims obvious, even though such teachings "would require one of skill to modify the structure of the bond between the two layers in Bjornberg et al. so that the pockets can break open." (Office Action, at 4).

Applicants respectfully submit, however, that independent claims 1, 16, and 23 patentably define over Bjornberg, et al. and Tanzer, et al. because one of ordinary skill

in the art would not have found it obvious to combine Bjornberg, et al. and Tanzer, et al. in the manner suggested in the Office Action. It appears that the only incentive or motivation for modifying Bjornberg, et al. using Tanzer, et al. results *improperly* from using Applicants' disclosure as a blueprint to reconstruct the claimed invention out of isolated teachings in the prior art. Specifically, no suggestion or motivation exists in Bjornberg, et al. for its impervious back sheet 3 and its cover sheet 7 to being anything but firmly "secured" to each other (either by glue or heat welding) along channels 9. (See, e.g., col. 3, lines 20-25; col. 6, line 64 – col. 7, line 27).

For example, column 5, lines 1-13 of Bjornberg, et al. specify that liquid passes along channels 9 to the nearest dry pockets 5, where the liquid is absorbed from the channels 9 through the side walls of those pockets that form the sloping walls of channels 9 and into the dry absorbent material in the next dry pockets 5. Just below this description, Bjornberg, et al. states that "maximum utilization of the ability of the pad to [absorb] liquid has been achieved." (Col. 5, lines 11-13). Thus, Bjornberg, et al. makes no mention of any desire for its channels to make up any sort of inner region that is capable of delaminating to any extent, and it appears that combining the Bjornberg, et al. and Tanzer, et al. references impermissibly relies on the use of hindsight. Accordingly, in view of the particular emphasis placed on pad construction by Bjornberg, et al., one of ordinary skill in the art would simply not have been motivated to modify Bjornberg, et al. with Tanzer, et al. in the manner suggested in the Office Action.

Further, in the Office Action, independent claims 1, 16, and 23 were rejected under 35 U.S.C. § 103(a) in view of U.S. Patent No. 5,938,650 to Baer, et al. Baer, et al. is directed to an absorbent core for absorbing liquids. As correctly noted by the Examiner, Baer, et al. fails to teach several aspects of the present claims. For instance, independent claims 1, 16, and 23 require that the length-to-width ratio of the pockets is between about 4 to about 100. The claimed pocket size is particularly designed to facilitate delamination of the inner region upon application of a force, while also maintaining flexibility of the laminate structure.

Nevertheless, the Office Action stated that while Baer, et al. might not explicitly recite various length-to-width ratios that can be used in its laminate, it discloses that the pockets can be different shapes and sizes. Additionally, the Office Action stated that

even if the prior art did not recognize that changing the shape or size of the pockets would affect the delamination properties of the laminate, the prior art "did recognize the fact that the shape and size of the pockets could be changed and is not limited to only one shape." (Office Action, at 5).

Applicants respectfully submit, however, that Baer, et al. *does not suggest* the claimed length-to-width ratio of the pockets of between about 4 to about 100, and its ability to facilitate the delamination of the pockets at a controlled rate and in a certain direction (e.g., width direction). The only mention of pocket size in Baer, et al. relates to the thickness of the laminate. Nowhere does Baer, et al. state or even imply that the selection of the length-to-width ratio within the claimed range is desirable. In any event, the absorption mechanism of Baer, et al. relies heavily on flow of liquid along three-dimensional flow channels defined by the bond lines (i.e., bond lines 32), which generally remain intact. (See e.g., col. 4). Only in "some applications" does Baer, et al. "contemplate" that forces generated by the swollen SAP particles will cause disruption of a seal line, thus providing additional volume and capacity and transfer into adjacent pockets. (Col. 4; lines 56-61). Essentially, Baer, et al. views delamination as almost a secondary result. For at least this reason, one of ordinary skill in the art would certainly not have been motivated to optimize the pocket size of Baer, et al. to actually facilitate delamination in the desired direction.

Again, Applicants emphasize that the teachings of reference(s) must be viewed in their entirety, i.e., as a whole, to sustain a *prima facie* case of obviousness under 35 U.S.C. § 103(a). In addition, the differences between a particular claim and the cited references cannot be viewed in a vacuum. Instead, the entire claimed invention must be considered as a whole. Applicants respectfully submit that, when properly viewed as a whole, there is simply no motivation to modify the cited references in an attempt to render obvious the claims 1, 16, and 23.

In addition, the above-cited references were also cited alone and/or in various combinations to reject dependent claims 2-8, 10-15, 17-22, 24-25, and 27-30. Applicants respectfully submit, however, that at least for the reasons indicated above relating to corresponding independent claims 1, 16, and 23, claims 2-8, 10-15, 17-22, 24-25, and 27-30 patentably define over the references cited. However, Applicants also

note that the patentability of dependent claims 2-8, 10-15, 17-22, 24-25, and 27-30 does not necessarily hinge on the patentability of independent claims 1, 16, and 23. In particular, some or all of these claims may possess features that are independently patentable, regardless of the patentability of claims 1, 16, and 23.

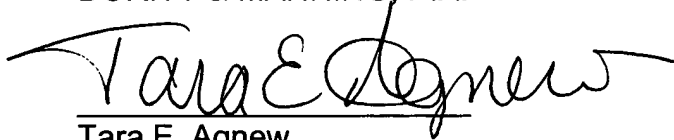
As a final note, Applicants respectfully point out that paragraphs 2 and 7 of the Office Action focus on whether or not the cited references teach "using suction to facilitate positioning of the particles" and "vacuum forming" pockets in the laminate. However, Applicants respectfully note that none of the claims pending in this application contain any limitation regarding using suction to position the discrete regions of particles or "vacuum forming" the pockets.

As such, for at least the reasons set forth above, Applicants respectfully submit that the present claims patentably define over all of the prior art of record. It is believed that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Examiner Befumo is invited and encouraged to telephone the undersigned, however, should any issues remain after consideration of this Response.

Please charge any additional fees required by this Response to Deposit Account No. 04-1403.

Respectfully submitted,

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